

CLAIMS:

1. A recovery device (2) for recovering valid storage data (SD) in a memory (11), with:
- storage means (10) for storing the storage data (SD) in storage areas (DSB, BSB, GSB) of the memory (11);
 - 5 - readout means (12) for reading the stored storage data (SD) from the storage areas (DSB, BSB, GSB) of the memory (11); and
 - recovery means (13) for detecting an unexpected abort during the storing of storage data (SD) and for recovering valid storage data (SD) in the memory (11), characterized in that the recovery means (13) for recovering valid storage data (SD) are
 - 10 designed to re-store the read-out storage data (SD) in the same storage area (GSB) in the memory (11) following the reading of storage data (SD) from at least one storage area (GSB) of the memory (11).
2. A recovery device (2) as claimed in claim 1, characterized in that, before the
- 15 storage of first storage data (SD) in a data storage area (DSB), the storage means (10) is designed to store second storage data (SD) stored in the data storage area (DSB) in a backup storage area (BSB), and that the storage means (10) is designed to store validity information (GI1, GI2) in a validity storage area (GSB) of memory (11), wherein first validity information (GI1) identifies the data storage area (DSB), and second validity information
- 20 (GI2) identifies the backup storage area (BSB) as storage areas comprising valid storage data (SD), and that recovery means (13) is designed, before recovering valid storage data (SD) in data storage area (DSB), to read the validity information (GI1, GI2) stored in validity storage area (GSB), and subsequently to store the read-out validity information (GI1, GI2) in the validity storage area (GSB).
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3. A recovery means (2) as claimed in claim 2, characterized in that the recovery means (13) is designed to store the first validity information (GI1) in validity storage area (GSB) if neither the first nor the second validity information has been read from validity storage area (GSB).

4. A recovery means (2) as claimed in claim 2, characterized in that the storage means (10) is designed to store the first validity information (GI1), which is formed, at least at a first bit position, by the bit "1" and at least at a second bit position, by the bit "0", and to
5 store the second validity information (GI2), which is formed, at least at the first bit position, by the bit "0" and at least at a second bit position, by the bit "1".

5. A recovery means (2) as claimed in claim 4, characterized in that the recovery means (13) is designed to establish whether the read-out validity information corresponds to
10 the second validity information (GI2), and that, in order to store the read-out validity information, the recovery means (13) overstores exclusively bit positions of stored validity information with bits "1" if the corresponding bit positions of the second validity information established (GI2) comprise the bit "1", wherein a previous erasure procedure is dispensed with during the overstorage of these bit positions.

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6. A recovery method (EV, AV) for recovering valid storage data (SD) in a memory (11), wherein the following steps are followed:

- storing of storage data (SD) in storage areas (DSB, BSB, GSB) of the memory (11);
- 20 - reading of the stored storage data (SD) from the storage areas (DSB, BSB, GSB) of the memory (11);
- detection of an unexpected abort during the storing of storage data (SD);
- recovery of valid storage data (SD) in the memory (11) if an abort has been detected, characterized in that, in order to recover the valid storage data (SD), the read-out
25 storage data (SD) is re-stored in the same storage area (GSB) in the memory (11) following the reading of storage data (SD) from at least one storage area (GSB) of the memory (11).

7. A recovery method (EV, AV) as claimed in claim 6, characterized in that, before the storing of the first storage data (SD) in a data storage area (DSB), second storage
30 data (SD) stored in data storage area (DSB) is stored in a backup storage area (BSB), and that validity information (GI1, GI2) is stored in a validity storage area (GSB) of memory (11), wherein first validity information (GI1) identifies the data storage area (DSB), and second validity information (GI2) identifies the backup storage area (BSB) as storage areas comprising valid storage data (SD), and that, before the recovery of valid storage data (SD)

in data storage area (DSB), the validity information (GI1, GI2) stored in validity storage area (GSB) is read, and subsequently, the read-out validity information is stored in validity storage area (GSB).

5 8. A recovery method (EV, AV) as claimed in claim 7, characterized in that, if neither the first nor the second validity information has been read from validity storage area (GSB), the first validity information (GI1) is stored in validity storage area (GSB).

10 9. A recovery method (EV, AV) as claimed in claim 7, characterized in that the stored first validity information (GI1) comprises the bit "1" at least at a first bit position, and the bit "0" at least at a second bit position, and that the stored second validity information (GI2) comprises the bit "0" at least at the first bit position, and the bit "1" at least at the second bit position.

15 10. A recovery method (EV, AV) as claimed in claim 9, characterized in that it is established whether the read-out validity information corresponds to the second validity information (GI2), and that, in order to store the read-out validity information, exclusively bit positions of the stored validity information are overstored with bits "1" if the corresponding bit positions of the second validity information established (GI2) comprise the bit "1",
20 wherein, during the overstoring of these bit positions, a previous erasure procedure is dispensed with.

25 11. A data carrier (2) for contactless communication with a reader station (1), with a memory (11) for storing storage data (SD) and with communication means (6) for receiving storage data (SD) to be stored in the memory (11) and for transmitting storage data (SD) read from the memory (11), characterized in that a recovery device in accordance with any one of claims 1 to 5 is provided.